

CLIMATOLOGICAL DATA FOR AUGUST, 1911.

DISTRICT No. 8, TEXAS AND THE RIO GRANDE VALLEY.

B. BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The weather during August was warmer than normal in the greater portion of the district, especially in the Texas area, and there was an abundance of sunshine. The precipitation was generally deficient, although good showers occurred in Colorado and in the northern half of Texas. Droughty conditions continued in the lower Rio Grande Valley and lower coast counties, and a large number of stations in this section received no moisture during the month. There was but little precipitation in either Colorado or New Mexico prior to the 10th, but from that date to the 28th showers occurred daily in those areas, although the rainfall was generally light until after the 20th. In Texas generally light and widely scattered showers occurred from the 1st to 3d and 11th to 19th, but from the 23d to 29th good showers occurred in the greater portion of the State. The number of days with 0.01 inch or more of precipitation averaged 12 in Colorado, 6 in New Mexico, and 4 in Texas. There were very few severe local storms during the month and only two or three deaths by lightning were reported.

The greatest and least monthly amounts of precipitation in Colorado were 4.32 inches at Cumbres and 0.88 inch at Garnett; in New Mexico, 4.50 inches at Rosedale and 0.14 inch at Agricultural College; and in Texas, 7.31 inches at San Angelo and none at 8 stations, mostly in the lower coast counties, while at 4 other stations the amounts were too small to be measured. Excessive precipitation of 2.50 inches or more in 24 consecutive hours occurred at 19 stations in Texas, chiefly in the northern half of the State.

TEMPERATURE.

The monthly mean temperature was 1.1° below the normal in Colorado, 0.1° above in New Mexico, and 1.6° above in Texas. The excess of temperature was greatest in the central and southwestern portions of Texas, where it ranged from 3° to 5° . During the first and second decades the temperatures were persistently above the normal, with warm days and comparatively cool nights, due to active radiation under clear skies. During the third decade there was much cloudy weather and the temperatures were not so high. The lowest temperatures occurred generally after the 27th. The daily range of temperature varied from about 10° on the Texas coast to about 40° in the extreme northern portion of the district.

The highest and lowest temperatures reported were: In Colorado, 90° at Saguache on the 19th, and 25° at Hermit on the 29th; in New Mexico, 106° at Fort Sumner on the 2d and at Rio Grande Dam on the 8th, and 28° at Anchor Mine on the 26th; and in Texas 112° at Bonham on the 22d, and 53° at Plainview on the 30th. The local monthly means ranged from 53.6° to 62° in Colorado, from 58.2° to 83.2° in New Mexico, and from 75.6° to 90.3° in Texas.

PRECIPITATION.

There was a decided shortage of precipitation over both the Rio Grande and Rio Pecos watersheds. The average over the former was only 1.30 and over the latter 1.56 inches. These amounts are only about one-third of those reported for July and are also much less than those for the corresponding month of the previous year. The deficiency extended over nearly all portions of their areas and was most pronounced over their lower reaches. The greatest monthly precipitation in the Rio Grande drainage basin was 4.50 inches at Rosedale, N. Mex., and none occurred at Llano Grande, Tex., while in that of the Rio Pecos the greatest was 3.08 inches at Harveys Upper Ranch, and none occurred at Barstow, Tex.

While the Texas watersheds showed a decided deficiency of precipitation over their lower portions, they had some heavy local rains over their upper reaches, which occurred principally during the third decade of the month. In a few localities in the upper reaches of the Colorado, Brazos, Trinity, and Sabine Rivers the monthly amounts ranged from 6 to 7 inches, the greatest being 7.31 inches at San Angelo. The greatest deficiency occurred in the coastal plains, and a large number of stations in this section received practically no moisture during the month. The following are the average monthly amounts in inches for the various watersheds: Nueces, 1.78; San Antonio, 1.63; Guadalupe, 1.32; Lavaca, 1.06; Colorado, 2.03; Brazos, 2.08; Trinity, 3; Neches, 3.20; Sabine, 3.71; and coastal plains, 1.23. These amounts are decidedly less than those reported for July, but they are much greater than for the corresponding month of last year.

RIVER CONDITIONS.

The Rio Pecos and the upper Rio Grande were at flood stage during July, but the flood waters did not show up much in the lower Rio Grande, the maximum rise at Mission, Tex., being only about 6 feet.

Of the Texas streams the Guadalupe, Sabine, and Neches were at low-water mark during the month, although the last-named river had a few unimportant rises. The Colorado, Brazos, and Trinity were falling during the greater part of the month, but after the 26th sharp rises occurred in the upper and middle portions of the Brazos and Colorado and in the upper portions of the Trinity. At Waco on the Brazos the stage was 13.6 feet on the 31st, which is higher than any previous stage at that place in August since the records began in 1903. At Dallas on the Trinity a stage of 25.5 feet was reached on the 31st, which is 0.5 foot above flood stage. Timely warnings of these rises were given and no damage resulted, as all movable property was carried beyond the danger line.

TABLE 1.—Climatological data for August, 1911. District No. 8, Texas and Rio Grande Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Number of rainy days, 0.01 inch or more.	Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of part cloudy days.	Number of cloudy days.				
<i>Colorado.</i>																				
Blanca.	Costilla.	7,865	2	59.6	.....	85	15	35	7	47	1.52	0.91	0	9	9	21	1	sw.	Dr. L. C. Audrian.
Cumbres.	Conejos.	10,015	4	.....	.....	.....	.....	.....	.....	.....	4.32	1.38	0	11	13	14	4	sw.	Mrs. Ida M. Lively.
Garnett.	Costilla.	7,576	18	61.1	+ 0.2	87	7†	35	29†	49	0.88	- 0.42	0	4	4	23	4	sw.	Chas. Speler.	
Hermit.	Hinsdale.	9,843	4	.....	.....	.....	.....	25	29	.....	3.03	1.52	0	13	14	13	4	sw.	Marion Mason.
La Veta Pass.	Costilla.	9,000	1	.....	.....	.....	.....	.....	.....	.....	3.01	1.01	0	13	0	9	22	w.	Clara M. Wright.
Manassa.	Conejos.	7,700	5	59.4	- 1.8	87	9	27	30	52	.....	3.53	1.27	0	19	12 ^a	8 ^c	sw.	J. B. Chapman.
Platoro.	do.	9,675	4	.....	.....	.....	.....	.....	.....	.....	.....	0.29	0	16	10	5	w.	Walter R. Hook.	
Saguache.	Saguache.	7,740	19	62.0	- 0.6	90	19	36	26	50	.....	1.27	0	13	6†	3†	16†	w.	Eugene Williams.
San Luis.	Costilla.	7,794	20	60.6	- 1.5	86	19	36	28†	44	2.32	+ 0.77	0.77	0	13	12	19	0	sw.	P. B. Albright.
Wagon Wheel Gap Experiment Station.	Mineral.	9,235	53.6	- 1.6	77	19	33	29	37	2.97	+ 0.78	1.27	0	14	9	16	6	w.	U. S. Weather Bureau.
<i>New Mexico.</i>																				
Agricultural College.	Dona Ana.	3,863	49	79.6	+ 0.2	103	7	56	2†	44	0.14	- 1.50	0.09	0	2	18	12	1	se.	New Mexico Agricultural College.
Alamogordo (near).	Otero.	4,338	10	79.0	+ 0.7	104	7†	53	30†	41	0.59	- 1.67	0.22	0	5	8	19	4	sw.	Charles Sutton.
Alamogordo.	do.	4,320	2	.....	.....	.....	.....	.....	.....	.....	0.68	0.29	0	5	5	5	4	sw.	Agent E. P. & S. W. R. R.
Alamos Ranch.	Sandoval.	7,800	1	.....	.....	.....	.....	.....	.....	.....	1.39	0.43	0	10	24	4	3	sw.	Harold H. Brooks.
Albuquerque.	Bernalillo.	5,000	35	0.62	- 0.98	0.34	0	5	18	10	3	w.	Pitt Ross, C. E.
Ancho.	Lincoln.	6,112	2	.....	.....	.....	.....	.....	.....	.....	2.16	1.45	0	4	4	4	3	sw.	Agent E. P. & S. W. R. R.
Anchor Mine.	Taos.	10,600	.....	.....	.....	82	7†	28	26	.....	2.05	1.00	0	5	17	13	1	e.	Charles H. Brigham.
Artesia.	Eddy.	3,350	4	76.0	.....	103	7	55	31	43	1.99	1.42	0	5	23	4	4	se.	Will Benson, C. E.
Aspen Grove Ranch.	Rio Arriba.	9,000	2	.....	.....	.....	.....	.....	.....	.....	3.19	0.83	0	13	6	24	1	w.	Junius D. Maupin.
Batemans Ranch.	do.	8,900	2	.....	.....	.....	.....	.....	.....	.....	3.21	1.12	0	9	12	17	2	w.	John W. Bateman.
Berino.	Dona Ana.	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.23	0.10	0	3	20	11	0	e.	C. A. Thompson.
Bluewater.	Valencia.	6,732	9	65.2	- 2.3	88	7†	37	31	47	2.17	+ 0.52	0.58	0	11	9	16	6	s.	Bluewater Development Co.
Boaz.	Chaves.	4,154	2	77.2	.....	104	14	53	31	47	1.63	0.77	0	4	16	12	3	w.	D. C. Savage.
Capitan.	Lincoln.	6,345	2	.....	.....	.....	.....	.....	.....	.....	1.48	0.40	0	13	3	10	18	s.	Agent E. P. & S. W. R. R.
Carlsbad.	Eddy.	3,120	16	79.5	- 0.5	104	7	57	30	43	1.23	- 0.94	0.64	0	5	19	7	5	se.	U. S. Reclamation Service.
Carizozo.	Lincoln.	5,429	3	76.1	.....	101	20	52	26	40	1.04	0.50	0	4	25	2	4	w.	Agent E. P. & S. W. R. R.
Chama.	Rio Arriba.	7,851	12	60.5	- 3.7	86	19	34	5	44	3.39	+ 0.74	1.34	0	8	17	13	1	sw.	Frank C. Johnson.
Cloudcroft.	Otero.	8,650	8	62.8	.....	55	7†	39	28	38	1.06	0.20	0	10	16	15	0	w.	Agent E. P. & S. W. R. R.
Corona.	Lincoln.	6,666	2	.....	.....	.....	.....	.....	.....	.....	0.60	0.40	0	2	15	8	8	s.	Do.
Coyote.	do.	5,500	2	.....	.....	.....	.....	.....	.....	.....	2.42	1.05	0	12	14	3	14	w.	Do.
Cundiyo.	Santa Fe.	6,889	2	.....	.....	.....	.....	.....	.....	.....	0.91	0.40	0	4	25	2	4	w.	Juan Vilij.
Demonstration Farm.	San Miguel.	6,800	2	.....	.....	.....	.....	.....	.....	.....	1.22	0.40	0	6	6	6	6	w.	Erb & Westerman.
Duran.	Torrance.	6,272	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	sw.	Agent E. P. & S. W. R. R.
Escondido.	Otero.	4,014	2	.....	.....	.....	.....	.....	.....	.....	0.82	0.69	0	2	18	11	2	sw.	Do.
Espanola.	Rio Arriba.	5,590	13	70.2	- 1.2	95	10	46	5†	48	0.37	- 1.33	0.34	0	16	14	1	sw.	Mrs. E. F. McBride.	
Estancia.	Torrance.	6,140	6	77.3	.....	96	15†	58	7	34	1.88	0.71	0	6	18	7	6	e.	Agent N. M. Centl. R. R.
Fort Stanton.	Lincoln.	6,231	33	68.6	+ 1.4	96	7	42	6	53	1.83	- 1.67	0.90	0	9	19	7	5	se.	U. S. Sanitarium.
Fort Sumner.	Guadalupe.	3,960	3	77.9	.....	106	2	52	4	50	1.55	0	1.51	0	3	27	2	sw.	F. A. Manzanares.
Gallinas.	Lincoln.	6,635	2	.....	.....	95	7	50	28†	41	0.70	0.59	0	5	22	1	8	w.	Agent E. P. & S. W. R. R.
Gallinas Planting Station.	San Miguel.	7,500	4	63.6	.....	87	8†	40	29	42	2.38	0.55	0	7	16	11	3	sw.	U. S. Forest Service.
Glorietta Ranch.	Socorro.	5,700	1	.....	.....	.....	.....	.....	.....	.....	1.87	1.02	0	7	18	6	7	sw.	Charles M. Crossman.
Harveys Upper-Ranch.	San Miguel.	9,400	2	.....	.....	.....	.....	.....	.....	.....	3.08	0.64	0	12	12	17	2	se.	Simon B. Warner.
Hillsboro.	Sierra.	5,224	13	77.4	+ 2.6	101	7†	50	27†	45	0.68	- 1.51	0.45	0	5	5	22	3	sw.	Dr. Frank J. Givens.
Hondo Reservoir.	Chaves.	3,904	2	79.8	.....	103	7†	55	31	39	1.06	0.84	0	4	25	2	4	se.	U. S. Reclamation Service.
Jemez Springs.	Sandoval.	6,100	1	69.2	.....	89	7†	49	29	33	1.68	0.60	0	12	13	10	8	se.	Linus L. Shields.
Knowles (near).	Eddy.	4,300	1	77.5	.....	102	21	52	29†	38	0.53	0.25	0	3	22	6	3	se.	J. W. Mosley.
Laguna.	Valencia.	5,840	6	72.8	.....	95	7	50	28†	41	0.70	0.35	0	3	2	7	5	w.	Gus Weiss.
Legunita.	Guadalupe.	4,500	6	72.8	.....	100	14	47	5	49	2.19	0.43	0	3	15	16	0	sw.	P. A. Turnbull.
Lake Valley.	Sierra.	5,412	6	73.7	102	11	58	26†	0.62	0.46	0	2	20	9	22	0	sw.	William P. Keil.
Las Vegas.	San Miguel.	6,385	24	67.6	- 0.2	91	4†	44	30	42	2.30	0.80	0	9	11	17	3	sw.	New Mexico Normal University.	
Liston.	Chaves.	5,000	1	.....	.....	.....	.....	.....	.....	.....	1.87	1.02	0	2	11	16	4	s.	H. G. Liston.
Los Lunas (near).	Valencia.	4,900	21	73.3	- 0.8	99	6	49	1	47	0.48	0.48	0	0	11	20	0	sw.	Richard Pohl.	
Magdalena.	Socorro.	6,557	6	69.5	.....	95	6	48	25	40	2.00	0.50	0	7	11	19	1	w.	William Pender.
Mescalero.	Otero.	6,627	6	66.9	.....	91	7	45	29†	40	0.93	0.41	0	8	16	9	6	sw.	Rev. Richard H. Harper.
Mineral Hill.	San Miguel.	7,050	6	.....	.....	.....	.....	.....	.....	.....	0.95	0.95	0	9	9	9	9	sw.	W. M. Nelson.
Monterey.	Otero.	4,436	2	.....	.....	.....	.....	.....	.....	.....	0.62	0.43	0	3	15	16	0	sw.	Agent E. P. & S. W. R. R.
Mountainair.	Torrance.	6,547	9	70.4	+ 1.8	97	7†	47	28†	42	1.10	0.38	0	8	20	9	2	sw.	Mrs. John W. Corbet.	
Newman.	Otero.	3,989	2	.....	.....	.....	.....	.....	.....	.....	0.48	0.46	0	2	19	10	2	sw.	Agent E. P. & S. W. R. R.
Noria.	Dona Ana.	4,114	2	.....	.....	.....	.....	.....	.....	.....	1.01	0.75	0	2	14	13	4	e.	James Brownfield, Jr.
Orange.	Otero.	5,000	4	.....	.....	.....	.....	.....	.....	.....	0.62	0.43	0	3	15	16	0	sw.	Agent E. P. & S. W. R. R.
Orogrande.	do.	4,171	2	.....	.....	.....	.....	.....	.....	.....	0.31	0	6	25	5	1	e.	Eugene F. Jones.	
Oscura.	Lincoln.	5,016	2	.....	.....	102	11	58	26†	.....	0.76	0.76	0	4	23	4	4	se.	A. M. Hove.
Otto.	Eddy.	3,100	2	.....	.....	.....	.....	.....	.....	.....	0.95	0.95	0	9	9	9	9	sw.	O. H. Johnson.
Pastura.	Guadalupe.	5,285	2	.....	.....	.....	.....	48	23	51	1.54	1.20	0	4	15	12	4	s.	Agent E. P. & S. W. R. R.
Placitas (near).	Bernalillo.	8,000	1	64.2	.....	85	15	43	29	31	1.16	0.46	0	6	17	11	3	w.	George C. Ellis.
Plainview.	Chaves.	4,300	1	78.2	.....	103	14†	52	30	43	0.55</								

TABLE 1.—Climatological data for August, 1911. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.				
				Mean.			Departure from the normal.			Total.			Departure from the normal.									
				Highest.	Date.	Lowest.	Greatest daily range.	Date.	Lowest.	Total.	Greatest in 24 hours.	Total rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.							
<i>New Mexico—Contd.</i>																						
Torrance.	Torrance.	6,433	2							2.30		1.11	0	5	13	14	4	e.	Agent E. P. & S. W. R. R.			
Tres Piedras.	Taos.	8,075	6																U. S. Forest Service.			
Truchas.	Rio Arriba.	7,935	2	63.7	95	9	40	30†	36	1.40		0.70	0	4	11	16	4	w.	Miss Ruth Rendon.			
Tularosa.	Otero.	4,436	3																Irby L. Fairless.			
Vaughn.	Guadalupe.	5,952	2							2.42		1.00	0	5	13	12	6	nw.	Agent E. P. & S. W. R. R.			
Virsylvia.	Taos.	7,500	1	67.4	89	17	44	27	39	2.81		1.00	0	12	21	2	w.	Dr. J. N. Woodman.				
Winsors.	San Miguel.	8,200	13	58.2	—0.3	82	9†	34	6†	45	2.28	—1.30	0.85	0	10	7	15	w.	Henry D. Winsor.			
<i>Texas.</i>																						
Abilene.	Taylor.	1,738	26	83.3	+ 2.1	103	14	63	29	28	2.83	+ 0.86	1.39	0	7	19	4	s.	U. S. Weather Bureau.			
Albany.	Shackelford.	1,429	17	83.0	+ 0.2	107	10	60	29†	42	3.59	+ 1.89	3.01	0	5	22	3	6.	N. L. Bartholomew.			
Alice.	Jim Wells.	209	88.1		104	14	70	31	29	0.00		0.00	0	0	18	11	2	s.	R. M. Boerum.			
Alpine.	Brewster.	4,482	1							1.07		1.63	0	3	26	5	0	se.	J. Frank Dobie.			
Alvin.	Brazoria.	49	13	82.4		97	8†	67	31	26	2.61		0.80	0	4	18	12	1	s.	Alvin Japanese Nursery.		
Anahuac.	Chambers.	23	2							2.71		1.31	0	3	18	9	4		B. H. Collins.			
Antelope.	Jack.									1.72		1.44	0	3	24	2	5	se.	Chas. C. Hawkins.			
Aspermont.	Stonewall.	593	55	86.3	+ 2.7	101	13†	60	31	27	2.48	—1.29	0.22	0	1	17	11	3	se.	Bryant Link Co.		
Austin.	Travis.									1.72		1.30	0	0	23	4	4	e.	A. Deussen.			
Ballinger.	Runnels.	1,637	15	84.3	+ 1.7	105	14†	64	30	36	5.07	+ 2.75	1.05	0	6	16	8	7	s.	Lee F. Freeman.		
Barstow.	Ward.	2,573	4	84.2		111	6	59	30	47	0.00		0.00	0	0	19	11	1	s.	E. M. Eubank.		
Bay City.	Matagorda.	53	1							T.		T.	0	0	15	0	16	s.	John Bender.			
Beaumont.	Jefferson.	29	10	83.0	+ 0.8	99	9	58	30	27	2.48	—1.84	0.59	0	9	15	0	16	s.	L. E. Dickey.		
Beeville.	Bee.	225	15	86.8	+ 2.0	102	9†	69	31	31	T.	—2.61	0	0	0	18	12	1	se.	Mrs. M. A. Stevens.		
Big Springs.	Howard.	2,396	13	85.4		109	5	58	30	37	0.37	—1.39	0.14	0	5	16	10	5	s.	Robt. E. Boyett.		
Blanco.	Blanco.	1,350	15	85.4	+ 2.1	106	9	60	31	38	0.82	—1.08	0.47	0	3	22	8	1	s.	R. C. Crist.		
Boerne.	Kendall.	1,412	19	82.8	+ 2.2	105	14	50	30	40	1.05	—1.15	0.57	0	4	6	19	6	se.	F. W. Schweppe.		
Booth.	Fort Bend.	81	10							0.40	—3.04	0.28	0	4	27	0	4	se.	T. R. Booth.			
Bowie.	Montague.	1,113	18	84.6	0.0	110	9	64	29†	38	4.68	+ 2.99	3.33	0	7	16	3	12	s.	Craig Anderson.		
Brady.	McCullough.	1,500	10							3.36	+ 0.45	1.80	0	4	19	9	3		G. W. Virling, jr.			
Brazoria.	Brazoria.	25	22	83.4	+ 2.2	97	12	68	31	26	1.30	—3.83	0.67	0	6	28	2	1	s.	Mrs. B. Sloan.		
Brazos.	Palo Pinto.	801	2							7.11		3.00	0	5	15	8	8	s.	Robt. E. Boyett.			
Brenham.	Washington.	350	26	86.4	+ 2.6	102	19†	69	31	27	0.88	—1.83	0.70	0	4	22	5	4	se.	R. M. Webb.		
Bridgeport.	Wise.	754	2							5.96		3.20	0	8	17	5	9	s.	Claude Strange.			
Brighton.	Nueces.	12	18	84.8	+ 1.8	96	10†	69	30	27	0.00	—1.68	0.00	0	0	29	2	0	se.	G. H. Ritter.		
Brownsville.	Cameron.	38	47	84.7	+ 1.0	97	8	69	31	24	T.	—2.80	T.	0	0	18	11	2	s.	U. S. Weather Bureau.		
Brownwood.	Brown.	1,342	19	84.5	+ 0.6	107	20	63	31	36	4.63	+ 2.67	2.55	0	9	12	17	2	s.	Mrs. Pearl Smith.		
Cameron.	Milam.	3																	J. E. Watts.			
Carmoona.	Folk.	330	3	83.3		101	9†	55	31	35	1.78		0.65	0	7	15	11	5	s.	M. S. Spitzer.		
Claytonville.	Fisher.	2,100	10	83.8	+ 3.1	107	14	60	30	35	5.80	+ 3.95	3.30	0	5	12	9	10	se.	Wm. Lanius.		
Clifton.	Bosque.	671								1.86		1.42	0	4	11	15	5	s.	R. M. Jones.			
Coleman.	Coleman.	1,710	17	84.1	+ 3.7	106	15	60	31	34	2.57	—0.51	1.73	0	3	13	15	3	s.	J. E. Stevens.		
College Station.	Brazos.	308	21	86.0	+ 2.8	104	10†	63	31	31	2.64	+ 0.50	1.78	0	8	20	5	5	s.	Prof. G. S. Fraps.		
Colorado.	Mitchell.	2,066	17	85.4	+ 3.1	105	6	63	31	36	2.98	+ 0.91	1.40	0	5	25	3	3	s.	R. M. Webb.		
Columbia.	Brazoria.	34	22	83.4	+ 1.4	99	15	64	31	30	1.00	—2.74	0.70	0	2	26	5	0	s.	R. B. Loggins.		
Columbus.	Colorado.	206	7							0.98		0.42	0	0	5	14	10	4	s.	Mrs. Sophie Bridge.		
Corpus Christi.	Nueces.	20	24	82.6	+ 0.5	92	12	73	10	16	0.00	—2.28	0.00	0	0	25	5	1	se.	U. S. Weather Bureau.		
Corsicana.	Navarro.	445	22	84.6	+ 1.2	102	20†	63	31	28	0.74	—1.22	0.30	0	6	20	7	4	s.	D. H. Winn.		
Cotulla.	La Salle.	425	4							3.05		0.92	0	7	20	7	4	s.	Holland Agricultural Co.			
Crockett.	Houston.	350	7	84.8		104	9	59	31	33	2.27		0.20	0	2	25	4	2	se.	A. M. Rencher.		
Cuero.	De Witt.	177	21	87.8	+ 2.9	105	12†	69	31	32	3.38	+ 1.53	3.25	0	3	20	4	7	s.	H. R. Frobese.		
Dallas.	Dallas.	466	22	85.0	+ 1.5	107	9†	62	31	35	4.14	+ 1.10	2.05	0	0	7	15	1	15	s.	G. A. Eisenlohr.	
Danevang.	Wharton.	145	15	85.8	+ 2.2	103	9	69	31	33	0.10	—3.29	0.10	0	1	29	1	1	se.	H. P. Hernansen.		
Decatur.	Wise.	1,047	15							1.00		0.80	0	2	25	4	2	s.	Fl. Worth & Denver City Ry.			
Del Rio.	Valverde.	952	5	89.0	+ 5.0	106	13	72	16	32	1.14	—1.55	1.04	0	3	20	10	1	se.	U. S. Weather Bureau.		
Devine.	Medina.	653	1	88.3		107	12	69	29	33	2.21		2.00	0	2	25	4	2	se.	M. A. Keller.		
Dialville.	Cherokee.	575	7	83.0		104	9	59	30†	30	4.08		2.75	0	4	16	10	5	s.	J. M. B. McKnight.		
Dilley.	Frio.	569	1							1.00		0.80	0	2	25	4	2	s.	John W. Miller.			
Dublin.	Erath.	1,466	15	85.2	+ 2.1	110	14	53	30	39	5.85	+ 3.91	2.03	0	7	13	11	7	s.	Ino. O. Shafer.		
Duval.	Travis.	820	22	85.6	+ 1.3	101	9†	66	31	27	0.61	—1.11	0.56	0	2	17	12	2	s.	J. C. Edgar.		
Eagle Pass.	Maverick.	800	34	88.8	+ 2.0	105	13†	70	30	30	2.13	—0.46	1.20	0	3	22	8	1	se.	Charles Tarver.		
Eastland.	Eastland.	1,420	4	84.8		110	14	62	30†	43	2.55		1.20	0	5	14	11	6	s.	J. R. Gilbreath.		
Edna.	Jackson.	71	3							0.99		0.64	0	3	20	11	0	e.	E. L. Faires.			
El Paso.	El Paso.	3,762	32	81.7	+ 3.1	102	7	63	26	32	0.45	—1.27	0.38	0	3	20	11	0	e.	U. S. Weather Bureau.		
Encinal.	La Salle.	558	3							3.05		1.55	0	2	25	4	2	s.	H. C. Braden.			
Eola.	Concho.									2.85		1.80	0	4	22	9	0	s.	E. W. Neal.			
Fairland.	Burnet.	1,000	22	86.4	+ 3.6	109	22	63	31	40	3.12	+ 1.05	2.85	0	3	20	4	7	s.	R. L. Bush.		
Falfurrias.	Star.	3	21	87.2		106	21†	66	31	36	0.67		0.67	0	1	25	6	0	se.	W. A. Gardner.		
Flatonia.	Fayette.	465	4	86.4		104	13	65	31	31	1.57		1.23	0	4	20	10	1	s.	Fred W. Lauth.		
Flint.	Smith.	483	1	84.2		105	14	55	31	37	3.71		1.86	0	6	18	6	7	sw.	F.		

TABLE 1.—Climatological data for August, 1911. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Total snowfall, unmeted.	Greatest in 24 hours.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Number of overcast days.	Prevailing wind direction.	Observers.	
				Mean.	Highest.	Date.	Lowest.	Greatest daily range.	Date.	Total.	Departure from the normal.										
Texas—Continued.																					
Hewitt.....	McLennan.	664	16							0.68	-0.97	0.47	0	3					I. H. Earle.		
Hico.....	Hamilton.	628	8	86.3	103	14†	63	31	30	2.00	3.92	2.15	0	5	22	2	7	s.	John A. Eakins.		
Hillsboro.....	Hill.	901	12	87.6	105	15	70	31	30	1.55	-1.12	1.16	0	3	19	12	0	se.	W. G. Escott.		
Hondo.....	Medina.	138	21	83.5	+ 0.6	98	9	68	31	27	1.87	-2.06	0.55	0	9	14	15	2	s.	H. E. Haass.	
Houston.....	Harris.	400	27	84.7	+ 1.5	100	9	59	31	36	1.50	-1.43	0.48	0	3	26	0	5	se.	U. S. Weather Bureau.	
Huntsville.....	Walker.	1								1.45		1.45	0	1	20	6	5	e.	W. Y. Barr.		
Jayton.....	Leon.	496	7	86.6	108	9	64	1†	38	1.35	0.75	1.11	0	4	17	9	5	s.	Wichita Valley Ry. Co.		
Jewett.....	Kimble.	1,645	8	83.7	108	15	60	3	43	1.10	0.60	0	0	2	24	3	4	s.	Earle Adkisson.		
Junction.....	Kaufman.	448	12	85.8	+ 0.8	106	20†	64	31	30	1.54	0.60	0	0	3	22	8	1	s.	Judge John S. Durst.	
Kerrville.....	Kerr.	1,650	15	83.9	+ 3.0	103	9†	59	31	37	2.19	+ 0.33	1.77	0	3	11	9	11	s.	B. J. Hubbard.	
Knickerbocker.....	Tom Green.	2,050	7	85.8	108	14	60	30	33	3.24	1.92	0	5	19	9	3	se.	Robert E. Horne.			
Kopperl.....	Bosque.	576	14							2.05	+ 0.22	0.75	0	4	16	6	9	s.	Jos. Tweedy.		
Lagrange.....	Fayette.	276	1							1.88		1.04	0	5	21	3	7	se.	T. A. Johnson.		
Lamesa.....	Dawson.	2,500	1							0.45		0.25	0	3					August Hernes.		
Lampasas.....	Lampasas.	1,026	19	84.8	+ 2.0	106	8	60	31	34	1.07	-0.79	0.73	0	2	23	0	8	s.	S. D. Austin.	
La Parra.....	Cameron.	38	9							0.00		0.00	0	0					Mrs. K. I. Webber.		
Laureles Ranch.....	Nueces.	20	11							0.25	-2.04	0.25	0	1					Jno. G. Kennedy.		
Liberty.....	Liberty.	38	7	82.0		97	20†	62	31	28	2.54	1.00	0	5	20	9	2	s.	Matt Cody.		
Llano.....	Llano.	1,040	20	86.4	+ 2.1	104	7†	64	31	32	1.17	-0.18	0.65	0	0	13	18	0	se.	Mrs. Fannie Sneed.	
Llano Grande.....	Hidalgo.	86	3	83.8		103	23	61	31	37	0.00		0.00	0	0	22	9	0	s.	E. W. Torrence.	
Long Lake.....	Anderson.	229	6							1.93		1.25	0	4	16	11	4	s.	M. D. Wardlow.		
Longview.....	Gregg.	336	25	84.1	+ 0.7	105	9	60	31	31	5.90	+ 4.06	1.50	0	10	18	3	10	se.	Geo. W. Ellis.	
Lubbock.....	Lubbock.	325	4	83.0		100	9†	50	31	32	2.55	0.20	0.12	0	2	22	6	3	se.	C. A. Probst.	
Lufkin.....	Angelina.	418	22	87.6	+ 3.6	102	9†	68	31	28	1.35	-0.58	1.00	0	6	22	6	3	s.	A. L. Paschall.	
McGregor.....	McLennan.	713	1	75.6		99	5	58	30	32	2.42	0.50	0.30	0	2	1	17	1	13	s.	T. A. King.
Marathon.....	Brewster.	4,043	1							1.50		1.50	0	1					John Carter.		
Marble Falls.....	Burnet.	771	3							0.50		0.30	0	2					W. H. Whitley.		
Marfa.....	Presidio.	3								0.50		0.30	0	2					Rev. A. P. Willis.		
Marshall.....	Harrison.	375	2	81.4		99	9†	57	31	28	4.60	0.99	0	11	3	26	2	sw.	R. H. Cochran.		
Matagorda.....	Matagorda.	12	1							1.33		1.02	0	2	29	2	0	s.	R. K. Colquitt.		
Mexia.....	Limestone.	537	7	84.8		105	20	60	31	35	0.32	0.25	0	3	12	8	11	s.	Lee Scott.		
Midland.....	Midland.	4								0.32		0.17	0	2					W. E. McNabb.		
Mission.....	Hidalgo.	140	1	86.5		100	3†	70	31	27	1.60	1.57	0	2	11	20	0	se.	Miss Josephine Newman.		
Mont Belvieu.....	Chambers.	65	1							1.64		2.82	0	5	11	16	4	s.	W. H. Neeb.		
Mountain View.....	Pecos.	2,900	1							0.84		0.49	0	2					Gleno Perryman.		
Mount Blanco.....	Crosby.	2,750	22	79.2	+ 1.2	103	14	54	30	39	0.52	-2.03	0.32	0	2	19	4	8	se.	A. R. Shearer.	
Nacogdoches.....	Nacogdoches.	271	12	81.1	-0.9	97	10†	56	31	29	2.09	-0.32	1.12	0	4	13	12	0	s.	Lucius W. Gosselin.	
New Braunfels.....	Comal.	720	22	84.7	+ 2.4	100	9†	63	31	30	1.18	-1.17	1.11	0	2	18	13	0	s.	H. C. Smith.	
Palestine.....	Anderson.	510	29	82.6	+ 2.1	100	20	60	31	29	3.01	+ 0.79	2.88	0	5	12	14	5	s.	Miss Mary Hofmann.	
Panter.....	Hood.	1,000	22							3.01	+ 1.72	3.84	0	5					J. Giesecke.		
Pearall.....	Frio.	629	1							3.01	+ 1.93	2.77	0	2					U. S. Weather Bureau.		
Pierce.....	Wharton.	102	5	82.6		101	9†	62	31	34	0.65	0.50	0	2	14	16	1	s.	E. H. Snider.		
Plainview.....	Hale.	3,370	15	75.7	-0.9	100	21	53	30	38	1.03	-1.41	0.64	0	5	20	9	2	s.	Earnest DeVilbiss.	
Port Arthur.....	Jefferson.	3,700	10	86.2	+ 2.4	100	12	72	9	26	T.	-3.25	T.	0	0	28	2	1	s.	R. B. Pointer.	
Port Lavaca.....	Calhoun.	20	10	86.2		100	12	72	9	26	T.	-3.25	T.	0	0	26	3	2	s.	J. F. Sander.	
Post City.....	Garza.	2,700	1							1.56		0.95	0	3	13	6	5	s.	Griffing Bros. Co.		
Putnam.....	Callahan.	1,591								0.43		0.30	0	2	23	8	0	se.	J. H. Bickford.		
Raymondville.....	Cameron.	57	2	85.2		100	12	70	10	27	1.30	1.26	0	2	23	6	3	s.	W. L. Dodd.		
Ricardo.....	Nueces.	169	7							1.35		0.65	0	3	21	2	8	s.	Rev. Jos. Reisdorff.		
Riverside.....	Walker.	1,850	12							3.60		1.00	0	9	164	44	74	s.	C. H. Pease.		
Robert Lee.....	Coke.	136	7							3.60	-3.03	0.25	0	1	25	4	2	se.	Lindsay Waters.		
Rockland.....	Tyler.	12	10	82.6	+ 0.2	89	11†	74	31	11	0.25	-3.03	0.25	0	2	29	12	0	se.	Mrs. C. W. Wigdon.	
Rockport **.....	Aransas.	558	4	86.2		103	3†	70	29†	29	3.73		0	2	19	12	0		J. T. McAllen.		
Rossville.....	Atascosa.	308	16							3.73		0	2						Miss L. C. Ford.		
Runge.....	Karnes.	964	7	87.0		103	9†	70	10†	33	1.03	0.83	0	2	9	14	8	s.	Jas. Johnston.		
Sabinal.....	Uvalde.	1								0.72		0.72	0	1	16	0	15	s.	L. M. Crockett.		
Salado.....	Bell.									0.72		0.72	0	1	16	8	4	s.	Sam Crowther.		
San Angelo.....	Tom Green.	1,847	20	85.9	+ 3.8	104	6†	62	30	38	7.31	+ 4.42	4.95	0	4	19	8	4	s.	F. A. Wilson.	
San Antonio.....	Bexar.	701	26	86.2	+ 4.2	102	12	67	31	28	0.48	-2.21	0.30	0	2	21	8	2	se.	J. B. McAllen.	
San Augustine.....	San Augustine.	360	2	82.0		101	9	56	31	31	5.47	2.81	0	9	15	7	9	20	s.	J. B. Wright, jr.	
San Juanito.....	Hidalgo.	2		89.2†		105	4†	64†	11	38†	1.17	0.75	0	2	9	29	0	9	s.	J. B. Wright, jr.	
San Marcos.....	Hays.	588	18	85.3	+ 2.0	100	9†	64	31	29	1.65	-0.03	0.69	0	3	22	0	9	s.	O. H. Albert.	
San Saba.....	San Saba.	1,712	10	84.8	+ 1.5	106	15	61	31	35	3.83	+ 2.94	1.14	0	10	23	7	1	s.	S. C. Lee.	
Santa Gertrudes.....	Nueces.	11								0.25	-2.04	0.25	0	1	18	8	5	s.	J. A. Allen Weaver.		
Sealy.....	Austin.	201								1.41		0.72	0	5	17	0	14	s.	W. A. Dolan.		
Seymour.....	Baylor.	1,320	5	82.0		109	20	54	42	42	2.79	1.76	0	5	17	0	14	s.	J. D. Reagan.		
Snyder.....	Scurry.	251	2	86.8		103	9†	63	31	32	0.87	0.50	0	4	21	6	4	s.	T. A. Williams.		
Somerville.....	Burleson.	2,300		81.7		106	6	59	29	36	1.69	1.00	0	5	23	6	2	s.	Arthur Bailey.		
Spur.....	Dickens.			81.9		104	14†	60	29	30	5.36	3.05	0	5	16	11	4	s.	W. A. Clark.		
Stamford.....	Jones.									1.80	0.80	0	4	22	0	9	9	s.	U. S. Weather Bureau.		

TABLE 2.—*Daily precipitation for August, 1911. District No. 8, Texas and Rio Grande Valley.*

TABLE 2.—*Daily precipitation for August, 1911. District No. 8—Continued.*

TABLE 2.—*Daily precipitation for August, 1911. District No. 8—Continued.*

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

II Precipitation for the 24 hours ending on the morning when it is measured.
T Precipitation is less than 0.01 inch rain or melted snow.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for August, 1911. District No. 8, Texas and Rio Grande Valley.

Date.	Colorado.				New Mexico.												Texas.				Corpus Christi.							
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain Air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1....	81	38	77	40	100	60	99	65	90	46	94	55	85	62	97	65	82	53	98	59	94	66	103	71	92	76	86	78
2....	82	40	75	46	96	56	100	64	87	47	89	55	83	64	97	61	80	55	96	53	93	69	100	70	92	76	88	78
3....	81	40	78	41	96	63	99	71	88	58	81	56	83	62	97	68	80	55	97	64	97	75	105	81	92	78	87	78
4....	83	37	79	38	98	62	100	60	92	55	89	55	85	65	99	60	81	52	98	63	95	76	108	77	93	77	87	79
5....	84	38	81	39	99	56	103	60	95	44	79	53	85	61	102	59	82	48	100	60	99	77	109	77	92	78	87	79
6....	83	36	78	42	100	56	101	59	92	42	94	56	87	57	101	56	83	53	99	54	100	78	107	75	92	76	87	78
7....	87	38	83	40	103	62	104	61	96	43	97	55	88	58	102	58	85	54	103	56	99	76	106	75	92	80	88	79
8....	85	45	85	42	101	63	98	62	93	50	94	57	87	60	99	60	87	56	104	63	100	77	106	75	97	77	89	78
9....	82	45	84	42	99	66	99	64	93	50	97	55	86	60	99	60	87	56	104	63	101	77	105	76	95	88	85	76
10....	83	43	81	45	99	64	97	67	90	53	96	57	84	56	97	60	83	58	101	66	101	73	105	75	94	72	87	73
11....	76	47	79	50	96	65	95	60	86	52	92	54	83	56	94	57	81	58	97	63	99	74	102	74	95	72	89	77
12....	81	44	76	43	95	65	94	65	86	56	90	53	80	55	95	59	78	56	97	73	101	73	96	72	92	76	87	77
13....	84	45	80	47	97	72	99	65	88	49	85	54	95	56	97	61	81	55	100	62	99	73	104	73	94	76	88	77
14....	87	45	85	42	101	69	98	64	92	51	96	56	85	58	101	60	85	56	102	65	103	76	106	71	94	78	88	79
15....	84	46	84	40	99	68	101	70	91	58	95	59	87	61	98	65	84	53	102	64	101	73	106	69	95	76	89	77
16....	85	43	85	45	99	70	95	67	91	52	97	55	87	62	97	62	84	60	100	68	95	80	102	69	95	76	88	77
17....	86	44	85	42	97	67	95	65	91	54	92	57	86	60	96	63	79	59	97	65	95	77	101	69	94	76	89	77
18....	85	47	82	45	98	73	97	67	91	58	93	55	86	59	98	66	83	57	98	62	96	78	103	75	94	76	88	75
19....	87	43	86	44	97	65	98	65	92	53	91	55	86	59	98	64	83	58	101	62	99	74	105	71	95	76	88	75
20....	84	47	79	47	98	68	99	64	91	51	96	57	85	58	98	62	83	60	102	61	100	77	105	76	96	76	89	77
Mns.	80.9	41.3	78.5	42.7	95.1	64.2	94.9	64.1	86.2	50.9	87.2	53.7	81.0	56.5	92.6	60.8	79.5	54.8	94.4	59.5	93.9	72.7	99.9	70.9	94.0	75.4	87.9	77.4
Date.	Texas.				Texas.												San Antonio.				Seymour.				Taylor.			
	Del Rio		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	101	78	99	67	104	77	104	70	99	75	87	75	99	75	92	73	96	68	90	69	89	61	98	74	98	65	98	75
2....	100	78	95	74	105	77	101	71	95	73	87	79	100	76	94	72	95	65	90	65	89	59	97	75	97	63	96	77
3....	102	78	95	75	107	77	106	74	92	76	88	81	100	76	94	75	96	70	92	75	97	67	100	70	97	76	97	76
4....	102	78	96	71	107	78	108	72	92	77	88	82	99	78	94	75	95	72	91	75	93	62	99	76	93	71	97	76
5....	101	77	97	70	105	77	109	72	95	75	87	81	100	76	93	76	95	73	92	74	93	65	98	74	92	70	97	75
6....	103	79	100	69	106	77	107	72	97	75	88	82	99	77	93	75	96	72	94	73	98	64	99	75	106	72	98	76
7....	102	77	102	73	106	78	105	73	99	73	88	81	102	76	96	74	97	72	94	74	95	62	100	75	102	76	99	75
8....	102	76	100	71	106	77	102	72	101	75	88	80	102	76	96	74	98	72	96	74	94	59	101	74	106	71	99	72
9....	103	77	98	74	105	76	102	68	103	76	92	79	102	75	98	74	100	70	99	75	95	60	102	74	107	72	97	72
10....	104	72	98	70	106	75	102	70	78	88	80	90	74	96	74	100	70	97	76	95	58	101	73	107	67	99	76	
11....	102	76	94	69	103	76	98	66	99	79	92	69	101	76	96	69	97	73	98	55	100	75	105	65	98	76		
12....	104	78	92	72	106	75	100	65	95	73	91	76	101	75	95	75	95	70	91	73	92	58	102	74	97	65	96	72
13....	106	76	96	70	105	77	101	65	100	75	88	83	102	77	94	75	97	70	95	74	94	61	100	76	102	60	100	75
14....	105	80	98	72	106	79	104	68	106	77	86	80	99	78	96	75	98	70	97	75	99	61	100	76	106	66	101	75
15....	103	79	98	71	105	78	104	68	99	77	88	82	100	77	96	75	98	75	99	75	99	63	101	75	102	70	101	76
16....	104	72	94	75	105	77	102	64	89	78	88	82	100	78	93	76	95	71	94	75	95	60	100	75	98	65	99	76
17....	102	78	96	73	105	78	101	61	92	76	88	81	101	76	95	76	98	73	94	76	95	64	101	76	102	73	99	75
18....	101	79	96	77	105	79	99	69	102	77	87	77	100	77	92	75	96	73	95	75	95	64	99	76	101	66	98	76
19....	102	79	97	75	104	77	101	70	103	78	87	78	101	79	93	75	97	72	96	74	99	62	99	76	108	69	100	77
20....	103	79	96	73	106	79	101	68	105	78	90	81	101	77	96	76	100	74	98	78	99	63	100	75	102	70	101	76
21....	105	78	94	74	106	77	106	70	101	79	87	80	102	77	95	75	98	73	97	75	100	65	100	75	108	75	100	76
22....	104	78	90	69	107	72	101	75	101	77	88	80	103	75	95													